

Application No.: 09/762,387

Docket No.: 21900-00020-US

AMENDMENTS TO THE CLAIMS

Claims 1 - 2. (Canceled)

3. (Previously Presented) A data transmission control apparatus, comprising a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compression to send out I frames is performed and compressed image data of I frame is sent out.

4. (Original) A data transmission control apparatus, comprising a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over.

5. (Previously Presented) A data transmission control system, comprising an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a

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time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation

time is compared with said current time and these agree with each other, compressed image data of I frame is sent out; and

an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over;

said data transmission control apparatus being connected with each other over a network, whereby compressed image data received is switched over at a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side.

6. (Currently Amended) A data transmission control system, ~~for use in a case wherein comprising a plurality of transmitting devices for transmitting compressed image data and a plurality of receiving devices for receiving compressed image data, all of said transmitting and receiving devices being~~ are connected with each other over a network, said system being arranged such that ~~each of said receiving devices can be switched so as to receive compressed image data from a desired one of said transmitting devices, each of~~

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said receiving devices comprising means for sending, through said network, an I frame sending request to one of said transmitting devices, which one is the transmitting device from which compressed image data is to be received after switching, each of said transmitting devices comprising means responsive to said I frame sending request to send out compressed image data of I frame to said network, whereby when switching from one of said transmitting devices to another is performed with respect to one of said receiving devices, said transmitting device which is to transmit compressed image data after switching is able to send said compressed image data of I frame in response to said I frame sending request to said receiving device, which sent said I frame sending request, when the compressed image data received on the receiving device is switched over, it is requested to send out I frame of compressed image data constituting the compressed image to the device for sending the compressed image data to be received newly, and compressed image data of I frame is transmitted within the a shortest time to the receiving device.

Claims 7 - 9. (Canceled)

10. (Currently Amended) A data transmission control system method in data transmission of compressed image data as claimed in claim 6, comprising the steps of means for setting a data amount of image data including I frame constituting the compressed image to a value lower than a transmissible data amount, and means for providing free time up to arrival of the next data group.

Claims 11 - 12. (Canceled).

13. (Original) The data transmission control apparatus according to claim 3, wherein an information of the designation time is maintained inside in advance.

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14. (Original) The data transmission control apparatus according to claim 4, wherein an information of the designation time is maintained inside in advance.

15. (Previously Presented) A data transmission control system, comprising:
a plurality of photographing means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal to and from said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, as a result of said comparison, the sending of transmission data from external device is stopped by said transmitting/receiving processing unit when the present designation time is detected;

a plurality of monitoring means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

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16. (Previously Presented) A data transmission control system, comprising:
a plurality of photographing means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, sending out of compressed image data of I frame is terminated;

a plurality of monitoring means each utilizing a data transmission control system having an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out; and an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said

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designation time is compared with said current time and these agree with each other, the received data is switched over; said data transmission control apparatuses being connected with each other over a network, whereby compressed image data received is switched over a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

17. (Previously Presented) A data transmission control system, comprising:
a plurality of photographing means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out;

a plurality of monitoring means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control

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signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

18. (Currently Amended) A data transmission control system, comprising:
a plurality of photographing means each utilizing a data transmission control apparatus, having [[a]] a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out;

a plurality of monitoring means each utilizing a data transmission control system having an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a

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designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out; and an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; said data transmission control apparatuses being connected with each other over a network, whereby compressed image data received is switched over at a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

19. (Previously Presented) A data transmission control system, comprising:

a plurality of photographing means each utilizing a data transmission control apparatus, for use in a case wherein a plurality of devices for transmitting and a plurality of devices for receiving compressed image data are connected with each other over a network, said system being arranged such that when the compressed image data received on the receiving device is switched over, it is requested to send out I frame of compressed image data constituting the compressed image to the device for sending the compressed

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image data to be received newly, and compressed image data of frame is transmitted within the shortest time to the receiving device;

a plurality of monitoring means each utilizing a data transmission control apparatus, having a clock processing unit for generating a current time corrected

according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control

signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

20. (Previously Presented) A data transmission control system, comprising:

a plurality of photographing means each utilizing a data transmission control apparatus, for use in a case wherein a plurality of devices for transmitting and a plurality of devices for receiving compressed image data are connected with each other

over a network, said system being arranged such that when the compressed image data received on the receiving device is switched over, it is requested to send out I frame of compressed image data constituting the compressed image to the device for sending the compressed image data to be received newly, and compressed image data of I frame is transmitted within the shortest time to the receiving device;

a plurality of monitoring means each utilizing a data transmission control system having an arbitrary number of data transmission control apparatuses each having a clock

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processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/ receiving processing unit for transmitting and receiving data including compressed image data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, compressed image data of I frame is sent out; and an arbitrary number of data transmission control apparatuses each having a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network, a transmitting/receiving processing unit for transmitting and receiving data and control signal with respect to said network, a time designation processing unit for setting a designation time received from said system controller via said network, and a designation time detection processing unit for comparing said preset designation time with said current time, whereby, when said designation time is compared with said current time and these agree with each other, the received data is switched over; said data transmission control apparatuses connected with each other over a network, whereby compressed image data received is switched over at a timing of transmission of an image data of I frame, which constitutes compressed image on the receiving side; and

a manager connected to a network, to which said plurality of photographing/transmitting means and said plurality of monitoring means are connected, said manager performing scheduling of data transmission between said plurality of photographing/transmitting means and said plurality of monitoring means.

21. (Previously Presented) The data transmission control system according to claim 15, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.

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22. (Previously Presented) The data transmission control system according to claim 16, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.

23. (Previously Presented) The data transmission control system according to claim 17, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.

24. (Previously Presented) The data transmission control system according to claim 18, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.

25. (Previously Presented) The data transmission control system according to claim 19, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.

26. (Previously Presented) The data transmission control system 25 according to claim 20, wherein, in the scheduling by said manager, the sending of I frame of compressed image data is thinned out.

27. (New) A data transmission control apparatus to be connected between a network and a device which receives data from said network, said data transmission control apparatus comprising

a device control apparatus, comprising:

a clock processing unit for generating a current time corrected according to an information of a time received from a system controller via a network;

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a time designation processing unit for setting a designation time received from said system controller via said network; and

a designation time detection processing unit for comparing said preset designation time with said current time,

whereby, as a result of said comparison, operation of said device is controlled when the preset designation time is reached so that data to be relayed to said device is switched over when the preset designation time is detected.